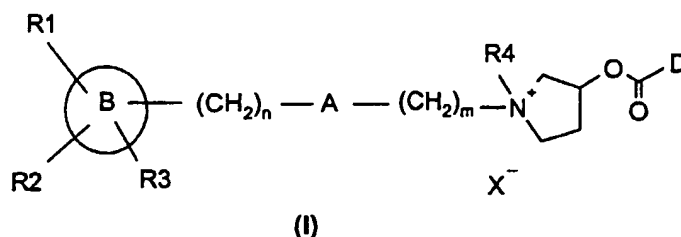


CLAIMS

1. A compound of formula (I):



wherein

B is a phenyl, naphthalenyl, 5,6,7,8-tetrahydronaphthalenyl, benzo[1,3]dioxolyl or biphenyl group or a 5 to 10-membered heteroaromatic group containing one or more heteroatoms selected from N, O or S;

R¹, R² and R³ each independently represent a hydrogen or halogen atom, or a hydroxy, phenyl, -OR⁵, -SR⁵, -NR⁵R⁶, -NHCOR⁵, -CONR⁵R⁶, -CN, -NO₂, -COOR⁵ or -CF₃ group, or a straight or branched, optionally substituted lower alkyl group;

or R¹ and R² together form an aromatic or alicyclic ring or a heterocyclic group;

R⁵ and R⁶ each independently represent a hydrogen atom, a straight or branched, optionally substituted lower alkyl group, or together form an alicyclic ring;

n is an integer from 0 to 4;

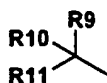
A represents a group selected from -CH₂-, -CH=CR⁷-, -CR⁷=CH-, -CR⁷R⁸-, -CO-, -O-, -S-, -S(O)-, -S(O)₂- and -NR⁷-, wherein R⁷ and R⁸ each independently represent a hydrogen atom, a straight or branched, optionally substituted lower alkyl group, or together form an alicyclic ring;

m is an integer from 0 to 8;

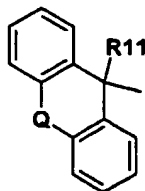
R⁴ represents a lower alkyl group;

D represents a group of formula i) or ii)

i)



ii)



wherein

5

R^9 represents a group selected from phenyl, 2-furyl, 3-furyl, 2-thienyl or 3-thienyl;

R^{10} represent a group selected from phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl or C_3 - C_7 cycloalkyl;

10

and R^{11} represents a hydrogen atom or a hydroxy, methyl, or $-CH_2OH$ group;

the cyclic groups represented by R^9 and R^{10} being optionally substituted by one or two substituents selected from halogen, straight or branched, optionally substituted lower

15

alkyl, hydroxy, optionally substituted lower alkoxy, nitro, cyano, $-CO_2R^{12}$ or $-NR^{12}R^{13}$, wherein R^{12} and R^{13} are identical or different and are selected from hydrogen and straight or branched, optionally substituted lower alkyl groups;

Q represents a single bond or a $-CH_2-$, $-CH_2CH_2-$, $-O-$, $-OCH_2-$, $-S-$, $-SCH_2-$ or $-CH=CH-$ group;

20

X^- represents a pharmaceutically acceptable anion of a mono or polyvalent acid;

including all individual stereoisomers and mixtures thereof;

25

with the proviso that in those compounds wherein B is phenyl, R^9 is unsubstituted phenyl, R^{10} is unsubstituted phenyl or unsubstituted C_3 - C_7 cycloalkyl, R^{11} is hydrogen or hydroxy, the sequence $-(CH_2)_n - A - (CH_2)_m -$ is not one of methylene, ethylene or propylene.

2. A compound according to claim 1, wherein B represents a phenyl, pyrrolyl, thienyl, furyl, biphenyl, naphthalenyl, 5, 6, 7, 8-tetrahydronaphthalenyl, benzo[1,3]dioxolyl, imidazolyl or benzothiazolyl group.
- 5 3. A compound according to claim 2, wherein B represents a phenyl, thienyl or pyrrolyl group.
4. A compound according to any one of the preceding claims wherein R¹, R² and R³ each independently represent a hydrogen or halogen atom, or a hydroxy, methyl, tert-butyl, -
- 10 CH₂OH, 3-hydroxypropyl, -OMe, -NMe₂, -NHCOMe, -CONH₂, -CN, -NO₂, -COOMe or -CF₃ group.
5. A compound according to claim 4, wherein R¹, R² and R³ each independently represent hydrogen, fluorine, chlorine or hydroxy.
- 15 6. A compound according to any one of the preceding claims wherein n = 0 or 1; m is an integer from 1 to 6; and A represents a -CH₂-, -CH=CH-, -CO-, -NMe-, -O- or -S- group.
7. A compound according to claim 6, wherein A is a -CH₂-, -CH=CH- or -O- group.
- 20 8. A compound according to claim 6, wherein the pyrrolidinium group is substituted on the nitrogen atom with a C₁-C₄ alkyl group and another group selected from 3-phenoxypropyl, 2-phenoxyethyl, 3-phenylallyl, phenethyl, 3-phenylpropyl, 3-(3-hydroxyphenoxy)propyl, 3-(4-fluorophenoxy)propyl, 3-thien-2-ylpropyl, 4-oxo-4-thien-2-ylbutyl, 2-benzyloxyethyl, 3-
25 tolyloxypropyl, 3-(3-cyanophenoxy)propyl, 3-(methylphenylamino)propyl, 3-phenylsulphanylpropyl, 4-oxo-4-phenylbutyl, 4-(4-fluorophenyl)-4-oxobutyl, 3-(2-chlorophenoxy)propyl, 3-(2,4-difluorophenoxy)propyl, 3-(4-methoxyphenoxy)propyl, 3-(benzo[1,3]dioxol-5-yloxy)propyl.
- 30 9. A compound according to claim 8 wherein the pyrrolidinium group is substituted on the nitrogen atom with a C₁-C₄ alkyl group and another group selected from 3-phenoxypropyl, 2-phenoxyethyl, 3-phenylallyl, phenethyl, 3-phenylpropyl, 3-(3-hydroxyphenoxy)propyl, 3-(4-fluorophenoxy)propyl, 4-(4-fluorophenyl)-4-oxobutyl or 3-thien-2-ylpropyl.

10. A compound according to any one of the preceding claims wherein D is a group of formula i), and wherein R⁹ is a group selected from phenyl, 2-thienyl or 2-furyl; R¹⁰ is a group selected from phenyl, 2-thienyl, cyclohexyl or cyclopentyl; and R¹¹ is a hydroxy group.

5

11. A compound according to any one of claims 1 to 9 wherein D is a group of formula ii), and wherein Q is a single bond or an oxygen atom and R¹¹ is a hydrogen atom or a hydroxy group.

10 12. A compound according to any one of the preceding claims wherein X⁻ is chloride, bromide, trifluoroacetate or methanesulphonate.

13. A compound according to any one of the preceding claims wherein the carbon at the 3-position of the pyrrolidinium ring has R configuration.

15

14. A compound according to any one of claims 1 to 12 wherein the carbon at the 3-position of the pyrrolidinium ring has S configuration.

15. A compound according to any one of claims 1 to 10 and 12 to 14 wherein D is a group of formula i) and the carbon substituted by R⁹, R¹⁰ and R¹¹ has R configuration.

20

16. A compound according to any one of claims 1 to 10 and 12 to 14 wherein D is a group of formula i) and the carbon substituted by R⁹, R¹⁰ and R¹¹ has S configuration.

25 17. A compound according to any one of the preceding claims, which is a single isomer.

18. A compound according to claim 1 which is one of:

30 3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-phenethylpyrrolidinium trifluoroacetate
3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-(2-phenoxyethyl)pyrrolidinium bromide
3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-(3-thien-2-ylpropyl)pyrrolidinium bromide
3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-(3-phenoxypropyl) pyrrolidinium bromide
3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-(-3-phenylallyl)pyrrolidinium
trifluoroacetate

- 3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(4-oxo-4-thien-2-ylbutyl)pyrrolidinium trifluoroacetate
- 1-[4-(4-Fluorophenyl)-4-oxobutyl]-3-(2-hydroxy-2,2-dithien-2-ylacetoxy)-1-methylpyrrolidinium trifluoroacetate
- 5 1-Ethyl-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-[3-(3-hydroxyphenoxy)propyl]pyrrolidinium trifluoroacetate
- 3-(2-Hydroxy-2,2-dithien-2-yl-acetoxy)-1-methyl-1-(3-pyrrol-1-ylpropyl)pyrrolidinium trifluoroacetate
- 3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-[6-(4-phenylbutoxy)hexyl]pyrrolidinium trifluoroacetate
- 10 1-(2-Benzyloxyethyl)-3-(2-cyclohexyl-2-fur-2-yl-2-hydroxyacetoxy)-1-methylpyrrolidinium trifluoroacetate
- 1-[3-(3-Cyanophenoxy)propyl]-3-(2-cyclohexyl-2-fur-2-yl-2-hydroxyacetoxy)-1-methylpyrrolidinium trifluoroacetate
- 15 3-(2-Cyclohexyl-2-fur-2-yl-2-hydroxyacetoxy)-1-methyl-1-[3-(naphthalen-1-yloxy)propyl]pyrrolidinium trifluoroacetate
- 3-(2-Cyclohexyl-2-fur-2-yl-2-hydroxyacetoxy)-1-methyl-1-[3-(methylphenylamino)propyl]pyrrolidinium trifluoroacetate
- 3-(2-Cyclohexyl-2-fur-2-yl-2-hydroxyacetoxy)-1-ethyl-1-(3-phenylsulphanylpropyl)pyrrolidinium trifluoroacetate
- 20 1-[3-(Benzothiazol-2-yloxy)propyl]-3-(2-cyclohexyl-2-fur-2-yl-2-hydroxyacetoxy)-1-methylpyrrolidinium trifluoroacetate
- 3-(2-Cyclopentyl-2-hydroxy-2-phenylacetoxy)-1-methyl-1-(3-phenoxypropyl)pyrrolidinium bromide
- 25 3-(2-Cyclopentyl-2-hydroxy-2-phenylacetoxy)-1-methyl-1-[3-(2,4,6-trimethylphenoxy)propyl]pyrrolidinium trifluoroacetate
- 1-[3-(2-Chlorophenoxy)propyl]-3-(2-cyclopentyl-2-hydroxy-2-phenylacetoxy)-1-methylpyrrolidinium trifluoroacetate
- 3-(2-Cyclopentyl-2-hydroxy-2-phenylacetoxy)-1-methyl-1-[3-(3-trifluoromethylphenoxy)propyl]pyrrolidinium trifluoroacetate
- 30 1-[3-(Biphenyl-4-yloxy)propyl]-3-(2-cyclopentyl-2-hydroxy-2-phenylacetoxy)-1-methylpyrrolidinium trifluoroacetate
- 3-(2-Cyclopentyl-2-hydroxy-2-phenylacetoxy)-1-[3-(2,4-difluorophenoxy)propyl]-1-methylpyrrolidinium trifluoroacetate

- 64 -

- 3-(2-Cyclopentyl-2-hydroxy-2-phenylacetoxy)-1-ethyl-1-[3-(4-methoxyphenoxy)propyl]-pyrrolidinium trifluoroacetate
- 3-(2-Cyclopentyl-2-hydroxy-2-phenylacetoxy)-1-methyl-1-[3-(5,6,7,8-tetrahydronaphthalen-2-yloxy)propyl]pyrrolidinium trifluoroacetate
- 5 3-(2-Cyclopentyl-2-hydroxy-2-phenylacetoxy)-1-methyl-1-[3-(1-methyl-1H-imidazol-2-ylsulphonyl)propyl]pyrrolidinium trifluoroacetate
- 1-Methyl-1-phenethyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium bromide
- 1-Methyl-1-(3-phenoxypropyl)-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium bromide
- 1-[3-(Benzo[1,3]dioxol-5-yloxy)propyl]-1-methyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium trifluoroacetate
- 10 1-[3-(2-Carbamoylphenoxy)propyl]-1-methyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium trifluoroacetate
- 1-[3-(3-Dimethylaminophenoxy)propyl]-1-methyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium trifluoroacetate
- 15 1-[3-(4-Acetylaminoxy)propyl]-1-methyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium trifluoroacetate
- 1-[3-(4-Methoxycarbonylphenoxy)propyl]-1-methyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium trifluoroacetate
- 1-Methyl-1-[3-(4-nitrophenoxy)propyl]-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium trifluoroacetate
- 20 1-[3-(4-Hydroxymethylphenoxy)propyl]-1-methyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium trifluoroacetate
- 3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-[3-(3-hydroxyphenoxy)propyl]-1-methylpyrrolidinium formate
- 25 1-[3-(4-Fluorophenoxy)propyl]-3-(2-hydroxy-2,2-dithien-2-ylacetoxy)-1-methylpyrrolidinium chloride
- 3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-phenylpropyl)pyrrolidinium bromide
- 1-Methyl-1-(3-o-tolyloxypropyl)-3-[(9H-xanthen-9-ylcarbonyl)oxy]pyrrolidinium bromide
- 3-[(9-hydroxy-9H-fluoren-9-yl)carbonyl]oxy-1-methyl-1-(4-oxo-4-phenylbutyl)pyrrolidinium formate
- 30 3-(2-Cyclohexyl-2-fur-2-yl-2-hydroxyacetoxy)-1-ethyl-1-(3-phenylsulfanylpropyl)pyrrolidinium bromide

19. A compound according to claim 1 which is one of:

- (3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-phenethylpyrrolidinium bromide
 (3S)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-phenethylpyrrolidinium bromide
 (3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(2-phenoxyethyl)pyrrolidinium
 bromide
- 5 (3S)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(2-phenoxyethyl)pyrrolidinium
 bromide
 (3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-thien-2-ylpropyl)pyrrolidinium
 bromide
 (3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-phenoxypropyl)pyrrolidinium
 10 bromide
 (3S)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-phenoxypropyl)pyrrolidinium
 bromide
 (3R)-3-[(2R)-2-Cyclohexyl-2-fur-2-yl-2-hydroxyacetoxy]-1-ethyl-1-(3-
 phenylsulphanylpropyl)pyrrolidinium trifluoroacetate
- 15 (3S)-3-[(2R)-2-Cyclohexyl-2-fur-2-yl-2-hydroxyacetoxy]-1-ethyl-1-(3-
 phenylsulphanylpropyl)pyrrolidinium trifluoroacetate
 (3R)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxy]-1-methyl-1-(3-
 phenoxypropyl)pyrrolidinium bromide
 (3S)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxy]-1-methyl-1-(3-
 20 phenoxypropyl)pyrrolidinium bromide
 (3R)-3-[(2S)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxy]-1-methyl-1-(3-
 phenoxypropyl)pyrrolidinium bromide
 (3S)-3-[(2S)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxy]-1-methyl-1-(3-
 phenoxypropyl)pyrrolidinium bromide
- 25 (3R)-1-Methyl-1-phenethyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium bromide
 (3S)-1-Methyl-1-phenethyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium bromide
 (3S)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-[3-(3-hydroxyphenoxy)propyl]-1-
 methylpyrrolidinium formate
 (3R)-3-[(9-hydroxy-9H-fluoren-9-yl)carbonyloxy]-1-methyl-1-(4-oxo-4-
 30 phenylbutyl)pyrrolidinium formate
 (3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(4-oxo-4-thien-2-
 ylbutyl)pyrrolidinium chloride
 (3R)-1-[4-(4-Fluorophenyl)-4-oxobutyl]-3-(2-hydroxy-2,2-dithien-2-ylacetoxy)-1-
 methylpyrrolidinium formate

- (3R)-1-[3-(3-Cyanophenoxy)propyl]-3-(2-cyclohexyl-2-fur-2-yl-2-hydroxyacetox)-1-methylpyrrolidinium formate
- (3R)-3-(2-Cyclohexyl-2-fur-2-yl-2-hydroxyacetox)-1-methyl-1-[3-(naphthalen-1-yloxy)propyl]pyrrolidinium formate
- 5 (3R)-3-(2-Cyclohexyl-2-fur-2-yl-2-hydroxyacetox)-1-methyl-1-[3-(methylphenylamino)propyl]pyrrolidinium chloride
- (3R)-1-[3-(Benzothiazol-2-yloxy)propyl]-3-(2-cyclohexyl-2-fur-2-yl-2-hydroxyacetox)-1-methylpyrrolidinium chloride
- (3R)-1-[3-(Biphenyl-4-yloxy)propyl]-3-[(2R)-2-cyclopentyl-2-hydroxy-2-phenylacetox]-1-methylpyrrolidinium chloride
- 10 (3R)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetox]-1-methyl-1-[3-(5,6,7,8-tetrahydronaphthalen-2-yloxy)propyl]pyrrolidinium bromide
- (3R)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetox]-1-methyl-1-[3-(1-methyl-1H-imidazol-2-ylsulfanyl)propyl]pyrrolidinium chloride
- 15 (3R)-1-[3-(2-Chlorophenoxy)propyl]-3-[(2R)-2-cyclopentyl-2-hydroxy-2-phenylacetox]-1-methylpyrrolidinium chloride
- 3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetox]-1-ethyl-1-[3-(4-methoxyphenoxy)propyl]pyrrolidinium bromide
- (3R)-1-(2-Benzyloxyethyl)-3-(2-cyclohexyl-2-fur-2-yl-2-hydroxyacetox)-1-methylpyrrolidinium bromide
- 20

20. A compound according to claim 1 which is one of:

- (1*, 3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-phenethylpyrrolidinium bromide
- 25 (diastereomer 1)
- (1*, 3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-phenethylpyrrolidinium bromide (diastereomer 2)
- (1*, 3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-(2-phenoxyethyl)pyrrolidinium bromide (diastereomer 1)
- 30 (1*, 3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-(2-phenoxyethyl)pyrrolidinium bromide (diastereomer 2)
- (1*, 3S)-3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-(2-phenoxyethyl)pyrrolidinium bromide (diastereomer 1)
- (1*, 3S)-3-(2-Hydroxy-2,2-dithien-2-ylacetox)-1-methyl-1-(2-phenoxyethyl)pyrrolidinium bromide (diastereomer 2)
- 35

- (1*,3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-phenoxypropyl)pyrrolidinium bromide (diastereomer 1)
- (1*,3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-phenoxypropyl)pyrrolidinium bromide (diastereomer 2)
- 5 (1*,3S)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxy]-1-methyl-1-(3-phenoxypropyl)pyrrolidinium bromide (diastereomer 1)
- (1*,3S)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxy]-1-methyl-1-(3-phenoxypropyl)pyrrolidinium bromide (diastereomer 2)
- (1*,3R)-1-Methyl-1-phenethyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium bromide
- 10 (diastereomer 1)
- (1*,3R)-1-Methyl-1-phenethyl-3-(9H-xanthen-9-ylcarbonyloxy)pyrrolidinium bromide (diastereomer 2)
- (1*, 3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-phenylallyl)pyrrolidinium bromide (diastereomer 1)
- 15 (1*, 3R)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-phenylallyl)pyrrolidinium bromide (diastereomer 2)
- (1*, 3R)-1-[4-(4-Fluorophenyl)-4-oxobutyl]-3-(2-hydroxy-2,2-dithien-2-ylacetoxy)-1-methylpyrrolidinium chloride (diastereomer 1)
- (1*,3S)-1-[3-(4-Fluorophenoxy)propyl]-3-(2-hydroxy-2,2-dithien-2-ylacetoxy)-1-methylpyrrolidinium chloride (diastereomer 1)
- 20 (1*,3S)-1-[3-(4-Fluorophenoxy)propyl]-3-(2-hydroxy-2,2-dithien-2-ylacetoxy)-1-methylpyrrolidinium chloride (diastereomer 2)
- (1*, 3S)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-phenylpropyl)pyrrolidinium bromide (diastereomer 1)
- 25 (1*, 3S)-3-(2-Hydroxy-2,2-dithien-2-ylacetoxy)-1-methyl-1-(3-phenylpropyl)pyrrolidinium bromide (diastereomer 2)
- (1*,3R)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxy]-1-methyl-1-(3-phenoxypropyl)pyrrolidinium bromide (diastereomer 1)
- (1*,3R)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxy]-1-methyl-1-(3-phenoxypropyl)pyrrolidinium bromide (diastereomer 2)
- 30 (1*, 3R)-1-[3-(Benzo[1,3]dioxol-5-yloxy)propyl]-1-methyl-3-[(9H-xanthen-9-ylcarbonyl)oxy]pyrrolidinium bromide (diastereomer 1)
- (1*, 3R)-1-[3-(Benzo[1,3]dioxol-5-yloxy)propyl]-1-methyl-3-[(9H-xanthen-9-ylcarbonyl)oxy]pyrrolidinium bromide (diastereomer 2)
- 35 (1*, 3S)-1-Methyl-1-(3-o-tolyloxypropyl)-3-

[(9H-xanthen-9-ylcarbonyl)oxy]pyrrolidinium bromide (diastereomer 1)

(1*, 3S)-1-Methyl-1-(3-o-tolyloxypropyl)-3-

[(9H-xanthen-9-ylcarbonyl)oxy]pyrrolidinium bromide (diastereomer 2)

(1*, 3R)-1-[3-(Biphenyl-4-yloxy)propyl]-3-[(2R)-2-cyclopentyl-2-hydroxy-2-phenylacetoxyl]-1-

5 methylpyrrolidinium chloride (diastereomer 1).

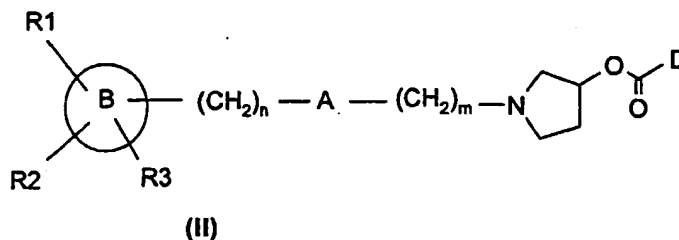
(1*, 3R)-1-[3-(Biphenyl-4-yloxy)propyl]-3-[(2R)-2-cyclopentyl-2-hydroxy-2-phenylacetoxyl]-1-

methylpyrrolidinium chloride (diastereomer 2).

(1*, 3R)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxyl]-1-methyl-1-[3-(5,6,7,8-tetrahydronaphthalen-2-yloxy)propyl]pyrrolidinium bromide (diastereomer 1).

10 (1*, 3R)-3-[(2R)-2-Cyclopentyl-2-hydroxy-2-phenylacetoxyl]-1-methyl-1-[3-(5,6,7,8-tetrahydronaphthalen-2-yloxy)propyl]pyrrolidinium bromide (diastereomer 2).

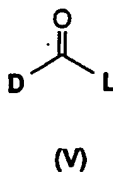
21. A process for producing a compound of formula (I), as defined in any one of the preceding claims, which process comprises reacting an alkylating agent of formula R4-W
15 with an intermediate of formula (II).



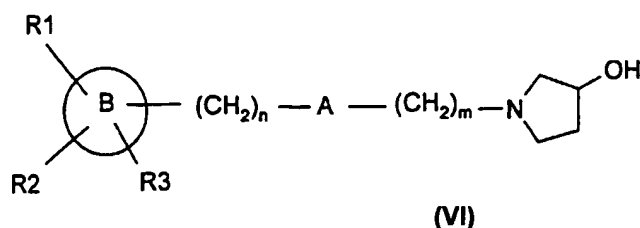
wherein m, n, A, B, D, R1, R2, R3 and R4 are as defined in claim 1 and W is any suitable leaving group.

20

22. A process according to claim 21, wherein the compound of formula (II) is obtained by reaction of a compound of formula (V)



wherein D is as defined in claim 1 and L is a leaving group, with a compound of formula
25 (VI)



wherein m, n, A, B, D, R1, R2 and R3 are as defined in claim 1.

23. A compound of formula (II), which is one of:

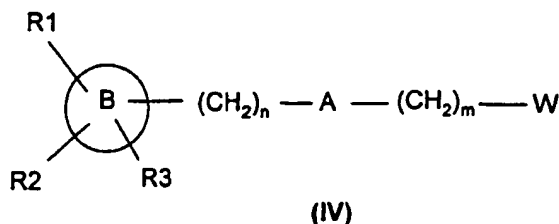
- 2-Hydroxy-2,2-dithien-2-ylacetic acid (3R)-1-(2-phenoxyethyl)pyrrolidin-3-yl ester
- 2-Hydroxy-2,2-dithien-2-ylacetic acid (3R)-1-(3-phenoxypropyl)pyrrolidin-3-yl ester
- 2-Hydroxy-2,2-dithien-2-ylacetic acid (3R)-1-(3-thien-2-ylpropyl)pyrrolidin-3-yl ester
- 2-Hydroxy-2,2-dithien-2-ylacetic acid (3R)-1-phenethylpyrrolidin-3-yl ester

24. A compound of formula (VI), which is one of:

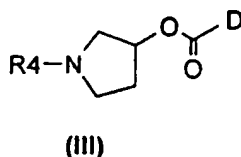
- (3R)-1-(3-phenoxypropyl)pyrrolidin-3-ol
- (3R)-1-(3-thien-2-ylpropyl)pyrrolidin-3-ol

25. A process for producing a compound of formula (I), as defined in any one of the preceding claims, which process comprises

reacting an alkylating agent of formula (IV)



wherein m, n, A, B, D, R1, R2 and R3 is as defined in claim 1 and W represents any suitable leaving group with an intermediate of formula (III).



wherein R4 and D are as defined in claim 1.

26. A pharmaceutical composition comprising a compound according to any one of claims
5 1 to 20 in admixture with a pharmaceutically acceptable carrier or diluent.

27. A compound according to any one of claims 1 to 20 for the treatment of a pathological
condition or disease susceptible to amelioration by antagonism of M3 muscarinic
receptors.

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28. Use of a compound according to any one of claims 1 to 20 in the manufacture of a
medicament for the treatment of a pathological condition or disease susceptible to
amelioration by antagonism of M3 muscarinic receptors.

15 29. Use according to claim 28 wherein the pathological condition is a respiratory,
urological or gastrointestinal disease or disorder.

30. A method for treating a subject afflicted with a pathological condition or disease
susceptible to amelioration by antagonism of M3 muscarinic receptors, which comprises
20 administering to said subject an effective amount of a compound as defined in any one of
claims 1 to 20.

31. A method according to claim 30 wherein the pathological condition is a respiratory,
urological or gastrointestinal disease or disorder.

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32. A combination product comprising
(i) a compound according to any one of claims 1 to 20; and
(ii) another compound effective in the treatment of a respiratory, urological or
gastrointestinal disease or disorder
30 for simultaneous, separate or sequential use.

33. A combination product according to claim 32 comprising
(i) a compound according to any one of claims 1 to 20; and
(ii) a β_2 agonist, steroid, antiallergic drug, phosphodiesterase IV inhibitor and/or
35 leukotriene D4 (LTD4) antagonist

for simultaneous, separate or sequential use in the treatment of a respiratory disease.

